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09/307,357 05/07/99 PESHKIN

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EXAMINER

020306 MMC1/1212
MCDONNELL BOEHNEN HULBERT & BERGHOFF
300 SOUTH WACKER DRIVE
CHICAGO IL 60606

THOMPSON, J. PAPER NUMBER

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action SummaryApplication No.
09/307,357

Applicant(s)

Peshkin et al

Examiner

Jewel Thompson

Group Art Unit
2855 Responsive to communication(s) filed on May 7, 1999 This action is **FINAL**. Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims Claim(s) 1-26 is/are pending in the application.Of the above, claim(s) 20-24 is/are withdrawn from consideration. Claim(s) _____ is/are allowed. Claim(s) 1-19, 25, and 26 is/are rejected. Claim(s) _____ is/are objected to. Claims _____ are subject to restriction or election requirement.**Application Papers** See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948. The drawing(s) filed on _____ is/are objected to by the Examiner. The proposed drawing correction, filed on _____ is approved disapproved. The specification is objected to by the Examiner. The oath or declaration is objected to by the Examiner.**Priority under 35 U.S.C. § 119** Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d). All Some* None of the CERTIFIED copies of the priority documents have been received. received in Application No. (Series Code/Serial Number) _____. received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

 Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).**Attachment(s)** Notice of References Cited, PTO-892 Information Disclosure Statement(s), PTO-1449, Paper No(s). _____ Interview Summary, PTO-413 Notice of Draftsperson's Patent Drawing Review, PTO-948 Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-19, 25 and 26 are, drawn to a force sensor, classified in class 73, subclass 862.53.
 - II. Claims 20-24, drawn to an optical system and method, classified in class 250, subclass 200.
2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions was of applying and measuring force, one mechanical and the other optical.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with George Lee on December 7, 2000 a provisional election was made without traverse to prosecute the invention of a force sensor measuring applied forces, claims 1-19, 25 and 26. Affirmation of this election must be made by applicant in replying to this Office action. Claims 20-24 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(l).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: In claim 1, there is no structural connection between the readout mechanism and the force sensor.

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Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-3, 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Couch et al. (6,033,309).

Couch et al teaches the aspects of the claimed invention, a force sensor measuring applied forces, comprising:

a first member (22);

a second member, wherein the first member is positioned nearby to the second member (20);

a flexure (16), the flexure connecting the first member and the second member, wherein the flexure, supports the first member with respect to the second member and allows the first member to move relative to the second member along two axes (fig.s 1-3);

a readout mechanism measuring the displacement of the first member relative to the second member, wherein the applied forces are determined from the displacement of the first member relative to the second member (col. 2, lines 5-21);

the first member comprises an inner member and the second member comprises an outer member (fig. 2);

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the readout mechanism comprises an optical electronic device (col. lines 5-21);
a graspable handle (14), the graspable handle connected to the first member (figs. 1 and 2);

the handle is integrally formed with the first member (fig. 3);

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 4, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Couch et al. (6,033,309) in view of Gusakov (5,451,852).

Couch et al. teaches the aspects of the claimed invention except the readout mechanism comprises an inductive readout device. Gusakov teaches a joystick which comprises two transducer which are inductive transducers and are used to measure force. It would have been obvious to one skilled in the art at the time that the invention was made to have used the inductive

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transducers of Gusakov in the device of Couch et al. in order to measure the force applied to the joystick.

The claim methods 25 and 26 have been rejected. The method here is nothing more than using the apparatus of the instant invention. Accordingly, the method claims are rejected for the same reasons.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6,004,134 Marcus et al. teaches an interactive simulation including force feedback
5,831,554 Hedayat et al. teaches an angular position sensor for pivoted control devices

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jewel Thompson at (703) 308-6726. The examiner can normally be reached on Mon-Fri. From 8:00am to 4:30pm. The fax phone number for this Group 703-308-7722. If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ben Fuller, can be reached on (703) 308-0079.

Jewel V. Thompson
jvt

December 7, 2000

BRF
Benjamin R. Fuller
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